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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,244	08/24/2006	Denys Sournac	0573-1011-1	8562

466 7590 02/27/2009

YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

EXAMINER	
MERENE, JAN CHRISTOP L	
ART UNIT	**PAPER NUMBER**
3733	

MAIL DATE	DELIVERY MODE
02/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,244	SOURNAC ET AL.	
	Examiner	Art Unit	
	JAN CHRISTOPHER MERENE	3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

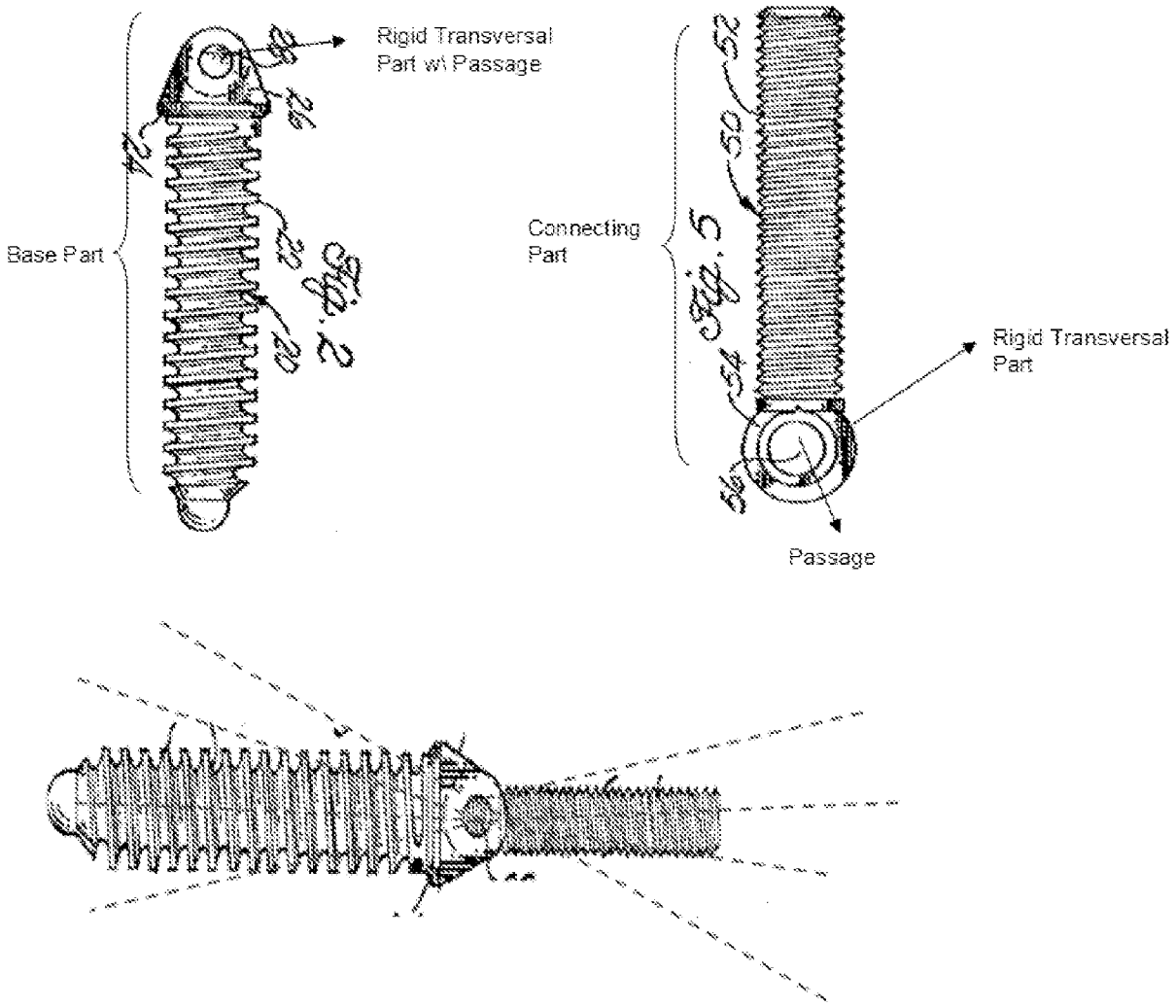
Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. **Claims 1-3, 9-11** are rejected under 35 U.S.C. 102(b) as being anticipated by Howland US 5,545,166.

Regarding **Claim 1,** Howland discloses a vertebral osteosynthesis device comprising a connecting rod, at least two bone anchoring elements, each with a base part and a connecting means, the rod (#16) connectable to the connecting means (see Fig 1 where multiple anchors are shown where the rod can connect to the anchors), where the connection means comprises a connecting part capable of articulating with respect to the base part and moveable in a plural of planes, where the connecting part and base part each further comprises a transversal passage and a rigid transversal part, where the transversal passage and the rigid transversal part extend substantially perpendicular, where the rigid transversal part of the connecting part is inserted in the transversal passage of the base part, where the rigid transversal part of the base part is inserted in the transversal passage of the connecting part (as seen in Fig below and see Col 3 lines 4-15, where the passages of the connecting part and base part extend perpendicular to the rigid part and where the base part is pivotable to the base element

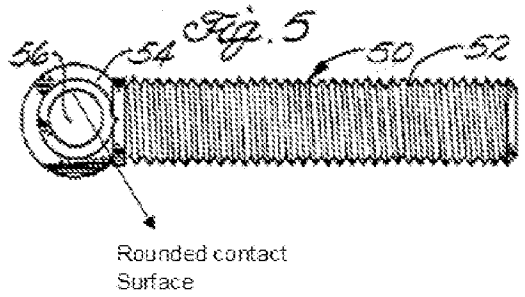
in a plurality of planes, as seen in Fig 4 below, shown in phantom lines to illustrate the various planes the base part and connecting part can move, where the phantom lines correspond to a different plane, taken in a transversal view).

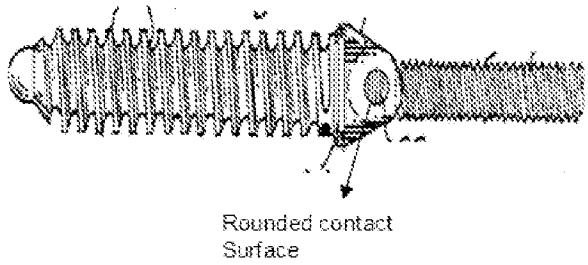


Regarding **Claim 2**, Howland discloses the rigid transversal element of the connecting part or of the base part are made by providing a ring on the connecting part and a ring on the base part the two rings of the connecting part and the base part being

inserted into each other similarly to links in a chain (see Col 3 lines 4-14 and see Figs above and as seen in Fig 3, where #26 and #28 form a ring on the base part to which the ring of the connecting part is inserted).

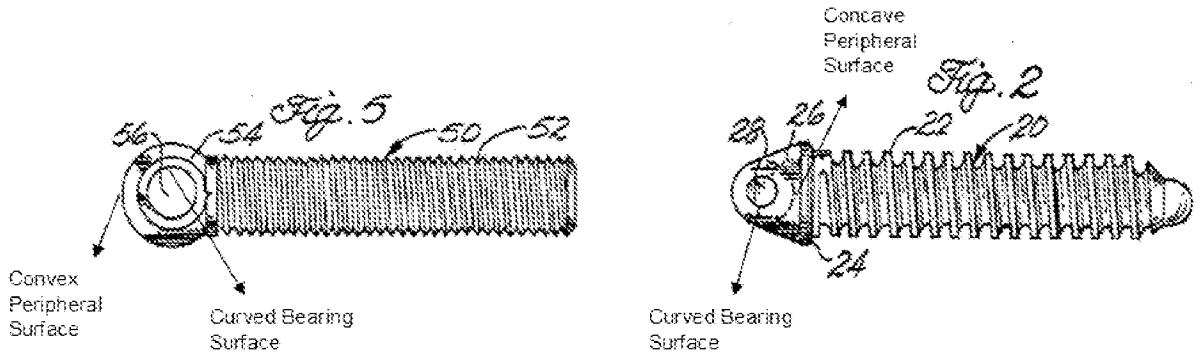
Regarding **Claims 3**, **11** Howland discloses that each rigid transversal element comprises a rounded contact surface with the other rigid transversal element, the radius of curvature of said contact surface being greater than the radius of the cross-section of the other rigid transversal element (see Col 3 lines 4-14 and see Figs above and below, where the rounded surface of the transversal element of the connecting part contacts the rounded surface of the transversal element of the base part and where #56 is slightly greater than #29).





Regarding **Claims 9-10**, Howland discloses the connecting part comprises a curved bearing surface, suitable for resting against a corresponding curved bearing surface of said base part and sliding against said surface during movements of said connecting part with respect to said base part, wherein the connecting part comprises a convex peripheral surface, in the form of a spherical cap, and said base part comprises a corresponding concave peripheral surface (see fig below and Col 3 lines 4-14, where

the curved bearing surfaces of the base part and connecting part bear against each other and where the outer periphery of the connecting part has a convex surface with a corresponding concave surface in the base part, also seen in Fig 4 where the base part and connecting part are joined together).



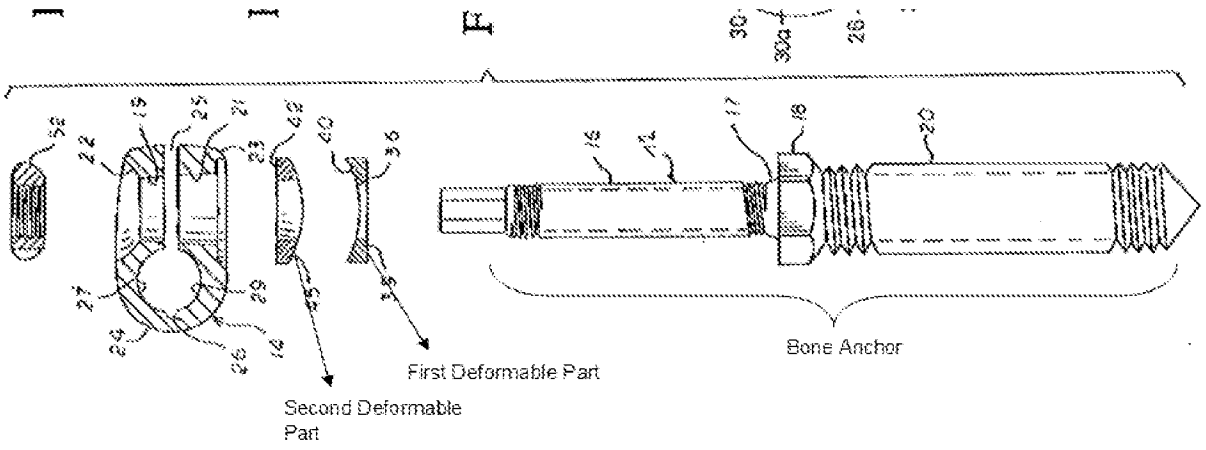
Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 7-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 in view of Lange US 6,123,706 and Fortin et al US 2005/0165396.

Howland discloses the claimed invention as discussed above but does not specifically disclose the connecting means further comprises another connecting part with an elastically deformable part and a second deformable part.

However, Lange discloses a similar device using a bone anchor with a base part and a connecting part with a connecting part with a first and second deformable part (as seen in Fig below).



It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Howland to include the first and second deformable parts of Lange because it helps the device pivot, tilt, etc especially when the bone anchor is engaged to bone (see Col 2 lines 10-4, Col 3 lines 43-58).

However, Lange does not specifically disclose that the parts are elastically deformable.

However, Fortin discloses first and second elastically deformable parts (#121, #122) placed in between two members (#116 and #110) that move in relation to each other and undergo forces and stress within the body (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the deformable parts of Lange to be made out of elastically deformable material as taught by Fortin because it provides resistance and

mechanical stress damping of forces to which the device of Howland and Lange would be subjected to (see abstract and paragraph 30).

6. **Claims 4, 6, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 in view of Littmann 3,014,683.

Howland discloses the claimed invention as disclosed above but does not specifically disclose the anchoring element comprises an intermediate part, inserted between said rigid traversal elements.

However, Littmann discloses the use of pivotable transversal elements which contain a plurality of intermediate members (#10, #14 as seen in Fig 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Howland to include an intermediate part as shown in Littman because inserting an intermediate part between two transversal elements can aid in adjusting the length between the transversal elements (as seen in Fig 1, 3 and see Col 2 lines 1-12), wherein the intermediate part (either #14 or #10) is to be retained between both transversal elements by means of the shape of the rigid transversal elements, wherein the intermediate part has rounded contact surfaces to contact the transversal elements (see Fig 1, 3).

7. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 and Littmann 3,014,683, as applied to claim 4 above, in further view of Ganem US 6,290,703.

Howland and Littmann disclose the claimed invention as discussed above where it is obvious that the transversal elements are made from a hard material but does not specifically disclose the transversal elements having a coating.

Ganem teaches that application of a coating helps to reduce friction against bearing/articulating surfaces (see Col 3 lines 1-5, Col 5 lines 15-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transversal elements of Howland to include a coating as taught by Ganem because the coating would help reduce friction between the transversal elements (see Col 3 lines 1-5, Col 5 lines 15-20).

8. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 in view of Ganem US 6,290,703.

Howland discloses the claimed invention as discussed above where it is obvious that the transversal elements are made from a hard material but does not specifically disclose the transversal elements having a coating.

Ganem teaches that application of a coating helps to reduce friction against bearing/articulating surfaces (see Col 3 lines 1-5, Col 5 lines 15-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transversal elements of Howland to include a coating as taught by Ganem because the coating would help reduce friction between the transversal elements (see Col 3 lines 1-5, Col 5 lines 15-20).

9. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 and Ganem US 6,290,703, as applied to claim 5 above, in further view of Littmann 3,014,683.

Howland and Ganem disclose the claimed invention as disclosed above but does not specifically disclose the anchoring element comprises an intermediate part, inserted between said rigid traversal elements.

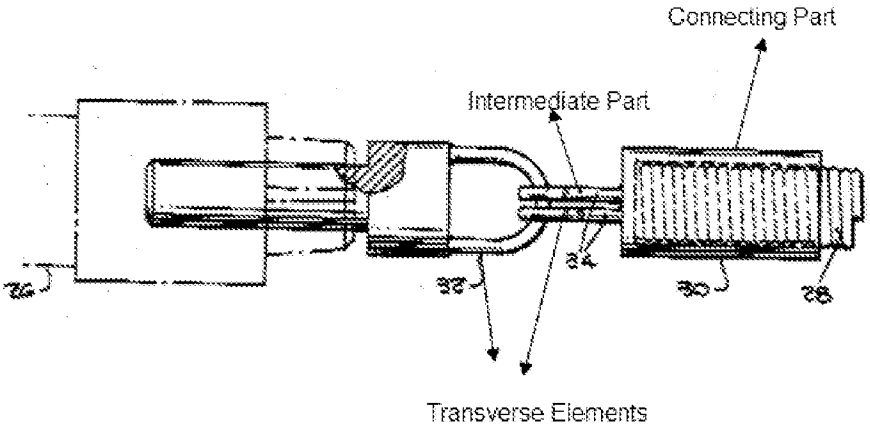
However, Littmann discloses the use of pivotable transversal elements which contain a plurality of intermediate members (#10, #14 as seen in Fig 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Howland and Ganem to include an intermediate part as shown in Littman because inserting an intermediate part between two transversal elements can aid in adjusting the length between the transversal elements (as seen in Fig 1, 3 and see Col 1 lines 1-12), wherein the intermediate part (either #14 or #10) is to be retained between both transversal elements by means of the shape of the rigid transversal elements, wherein the intermediate part has rounded contact surfaces to contact the transversal elements (see Fig 1, 3).

10. **Claims 4, 6, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 in view of Sanger US 4,232,419.

Howland discloses the claimed invention as disclosed above but does not specifically disclose the anchoring element comprises an intermediate part, inserted between said rigid traversal elements.

However, Sanger teaches the use of pivotable transversal elements which contain an intermediate member (as seen below), where the connecting part and base part articulate/move with respect to each other, during which the intermediate member is retained between the transverse elements.

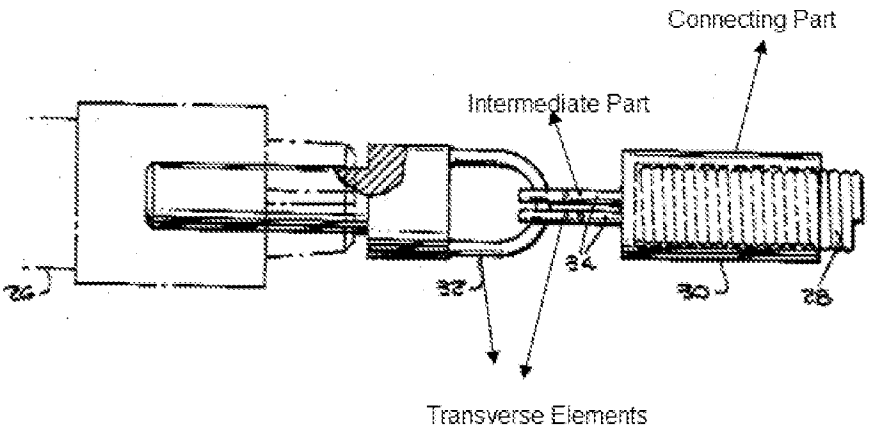


It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the connecting part of Howland to include an intermediate part as shown in Sanger above because it is a simple substation of known type of hook member with another to obtain predictable results of having two parts articulate/move with respect to the each other (see Fig above and see Col 2 lines 12-27) wherein the intermediate part is retained between both transversal elements by means of the shape of the rigid transversal elements where the intermediate part is also rounded like that of the transverse elements of the connecting part and rounded to be retained with the transverse element of the base part.

11. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Howland US 5,545,166 and Ganem US 6,290,703, as applied to claim 5 above, in further view of Sanger US 4,232,419.

Howland and Ganem disclose the claimed invention as disclosed above but does not specifically disclose the anchoring element comprises an intermediate part, inserted between said rigid traversal elements.

However, Sanger teaches the use of pivotable transversal elements which contain an intermediate member (as seen below), where the connecting part and base part articulate/move with respect to each other, during which the intermediate member is retained between the transverse elements.



It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the connecting part of Howland to include an intermediate part as shown in Sanger above because it is a simple substation of known type of hook member with another to obtain predictable results of having two parts articulate/move with respect to the each other (see Fig above and see Col 2 lines 12-27), wherein the

intermediate part is retained between both transversal elements by means of the shape of the rigid transversal elements, where the intermediate part is also rounded like that of the transverse elements of the connecting part and rounded to be retained with the transverse element of the base part.

Response to Arguments

12. Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and relied upon is considered pertinent to the applicant's disclosure. See PTO-892 for art cited of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAN CHRISTOPHER MERENE whose telephone number is (571)270-5032. The examiner can normally be reached on 8 am - 6pm Mon-Thurs, alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jan Christopher Merene/
Examiner, Art Unit 3733

/Eduardo C. Robert/
Supervisory Patent Examiner, Art Unit 3733